



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Peter G. Borden; Ji-Ping Li
Assignee: Boxer Cross
Title: Apparatus and Method for Measuring A Property of a Layer in a Multilayered Structure
Serial No.: 10/090,316 Filing Date: March 1, 2002
Examiner: Rosenberger, Richard A. Group Art Unit: 2877
Docket No.: BOX006 US Confirmation No: 5495

Santa Clara, California
April 22, 2004

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT
FILED WITH REQUEST FOR CONTINUED EXAMINATION (RCE)**

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, §1.97 and §1.98, the Applicants submit for consideration in the above-identified patent application the document listed on the accompanying Form PTO-1449. Document number 92 is not attached hereto, because this document is an issued patent which is readily available in the U.S. Patent and Trademark Office. The Examiner is requested to make this document of record.

It is believed that no fee is required for this Information Disclosure Statement, since it is being filed as a "submission" in support of a Request for Continued Examination (RCE). If this is incorrect, the Commissioner is hereby authorized to charge any required fee for this Information Disclosure Statement or the accompanying Request for Continued Examination to Deposit Account No. 50-2263 while referencing the Attorney Docket No. BOX006 US.

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement is to the best of my knowledge and is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not

SILICON VALLEY
PATENT GROUP LLP
2350 Mission College Blvd.
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210

exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

**Via Express Mail Label No.
ER 205 700 291 US**

Respectfully submitted,



Omkar K. Suryadevara
Attorney for Applicants
Reg. No. 36,320

Examiner:	Date Considered:
<p>* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.</p>	



COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Peter G. Borden; Ji-Ping Li
Assignee: Boxer Cross
Title: Apparatus and Method for Measuring A Property of a Layer in a Multilayered Structure
Serial No.: 10/090,316 Filing Date: March 1, 2002
Examiner: Rosenberger, Richard A. Group Art Unit: 2859
Docket No.: BOX006 US Confirmation No: 5495

Santa Clara, California
January 5, 2004

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.97(c)**

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, §1.97 and §1.98, the Applicants submit for consideration in the above-identified patent application the document listed on the accompanying Form PTO-1449. Copies of references numbered 69-91 are submitted herewith. The Examiner is requested to make these documents of record. The remaining references are not attached hereto, because these references are issued patents which are readily available in the U.S. Patent and Trademark Office.

This Information Disclosure Statement is submitted pursuant to 37 CFR §1.97(c) as it is after receipt of a first Office Action on the merits but before mailing of a final Action or Notice of Allowance. Accordingly, a fee is required pursuant to 37 CFR §1.17(p). A Fee Transmittal form (PTO/SB/17) is attached to this submission.

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

In addition, Applicants submit for the Examiner's consideration, the prosecution histories of the following co-owned applications/patents, cited by serial number, first named inventor and filing date. The Applicants presume that the Examiner has access to

SILICON VALLEY
PATENT GROUP LLP
2350 Mission College Blvd.
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210

and will review the cited applications/patents and the files thereof for any office actions, amendments or other materials that may be relevant to the patentability of the claims of the present application.

Citation of these prosecution histories (including the arguments against patentability advanced by Examiners in their respective Office Actions and the Applicants' arguments in the corresponding Amendments) is in accordance with the recent case DAYCO PRODUCTS, INC. v. TOTAL CONTAINMENT, INC., 02-1497, decided May 23, 2003 by the Court of Appeals for the Federal Circuit. The Examiner is presumed to be knowledgeable about the current case law, including the above-mentioned Dayco case. However, if the Examiner needs a copy of the Dayco case, please call the undersigned.

For any of the following U.S. patent application(s) that are currently pending, the Applicants further presume that the Examiner will consider any future office actions, amendments or other materials in the file thereof that may be relevant to the patentability of the claims herein. **If the Applicants' understanding in this regard is not correct, please notify the undersigned so that copies of any such documents can be submitted to the Examiner.**

	Serial No.:	First Named Inventor	Date:
1.	09/974,571	Peter G. Borden	10/09/2001
2.	10/090,287	Peter G. Borden	03/01/2002
3.	09/521,232	Peter G. Borden	03/08/2000
4.	10/090,262	Peter G. Borden	03/01/2002
5.	09/788,273	Peter G. Borden	02/16/2001
6.	10/722,724	Peter G. Borden	11/25/2003
7.	09/095,805	Peter G. Borden	06/10/1998

The information contained in this Information Disclosure Statement is to the best of my knowledge and is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

Via Express Mail Label No.
ER 308 113 868 US

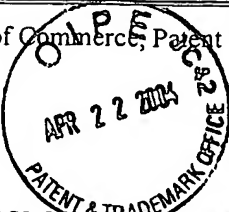
Respectfully submitted,



Omkar K. Suryadevara
Attorney for Applicants
Reg. No. 36,320

SILICON VALLEY
PATENT GROUP LLP

2350 Mission College Blvd.
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210

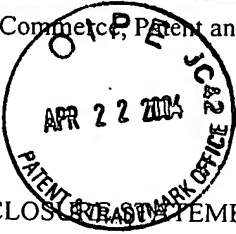
U.S. Department of Commerce, Patent and Trademark Office  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Application No.:	10/090,316
	Filing Date:	March 1, 2002
	First Named Inventor:	Peter G. Borden
	Group Art Unit:	2877
	Examiner Name:	Rosenberger, Richard A.
	Confirmation No.:	5495
	Attorney Docket No.:	BOX006 US

U.S. Patent Documents							
*Examiner Initials		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1.	6,489,801	12/3/02	Borden et al.	324	766	
	2.	5,966,019	10/12/99	Borden	324	752	
	3.	5,377,006	12/27/94	Nakata	356	349	
	4.	6,323,951	11/27/01	Borden et al.	356	502	
	5.	6,426,644	7/30/02	Borden et al.	324	765	
	6.	5,042,951	8/27/91	Gold et al.	356	369	
	7.	5,159,412	10/27/92	Willenborg et al.	356	445	
	8.	5,181,080	1/19/93	Fanton et al.	356	381	
	9.	5,228,776	7/20/93	Smith et al.	374	5	
	10.	4,255,971	3/17/81	Rosencwaig	73	606	
	11.	4,579,463	4/1/86	Rosencwaig et al.	374	57	
	12.	4,632,561	12/30/86	Rosencwaig et al.	356	432	
	13.	6,049,220	4/11/00	Borden et al.	324	765	
	14.	6,483,594	11/19/02	Borden et al.	356	502	
	15.	5,652,716	7/29/97	Battersby	703	13	
	16.	5,761,082	6/2/98	Miura-Mattausch	703	14	
	17.	4,996,659	2/26/91	Yamaguchi et al.	714	736	
	18.	6,154,280	11/2/00	Borden	356	376	
	19.	6,054,868	4/25/00	Borden et al.	324	752	
	20.	5,883,518	3/16/99	Borden	324	752	
	21.	5,877,860	3/2/99	Borden	356	376	
	22.	5,978,074	11/2/99	Opsal et al.	356	72	
	23.	5,574,562	11/12/96	Fishman et al.	356	432	
	24.	6,169,601	1/2/01	Eremin et al.	356	239.8	
	25.	3,803,413	4/9/74	Vanzetti et al.	250	338	

Examiner:

Date Considered:

* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.

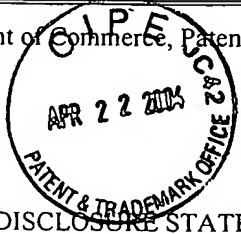
U.S. Department of Commerce, Patent and Trademark Office  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Application No.:	10/090,316
	Filing Date:	March 1, 2002
	First Named Inventor:	Peter G. Borden
	Group Art Unit:	2877
	Examiner Name:	Rosenberger, Richard A.
	Confirmation No.:	5495
	Attorney Docket No.:	BOX006 US

26.	2002/0126732A 1	9/12/02	Shakouri et al.	374	130	
27.	6,330,361	12/11/01	Mitchell et al.	382	211	
28.	4,201,087	5/6/80	Akita et al.	73	339	
29.	6,178,020	1/23/01	Schultz et al.	359	107	
30.	5,128,864	7/7/92	Waggener et al.	364	413.2	
31.	5,304,931	4/19/94	Flamig et al.	324	309	
32.	2003/0036231A 1	2/20/03	Bhattacharva et al.	438	201	
33.	2002/0186045A 1	12/12/02	Cox	326	41	
34.	2003/96436A1	5/22/03	Satya et al.	438	11	
35.	2003/0155927A 1	8/21/03	Pinto et al.	324	501	
36.	6,489,624	12/3/02	Ushio et al	250	559.3	
37.	6,486,965	11/26/02	Kim	356	626	
38.	5,741,614	4/21/98	McCoy et al.	430	30	
39.	6,327,035	12/4/01	Li et al.	356	432	
40.	5,454,004	9/26/95	Leger	372	99	
41.	6,281,027	9/28/01	Wei et al.	438	14	
42.	4,975,141	12/4/90	Greco et al.	156	626	
43.	6,395,563	5/28/02	Eriguchi	438	7	
44.	4,950,990	8/21/90	Moulder	324	224	
45.	5,667,300	9/16/97	Mandelis et al.	374	43	
46.	4,521,118	06/00/85	Rosencwaig	374	5	
47.	4,710,030	12/1/87	Tauc et al.	356	445	
48.	5,074 669	12/1/91	Opsal	356	447	
49.	3,909,602	9/30/75	Micka	235	151.3	
50.	5,430,548	7/4/95	Hirio et al.	356	394	
51.	5,764,363	6/9/98	Ooki et al.	356	364	

Examiner:

Date Considered:

* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.

U.S. Department of Commerce, Patent and Trademark Office  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Application No.:	10/090,316
	Filing Date:	March 1, 2002
	First Named Inventor:	Peter G. Borden
	Group Art Unit:	2877
	Examiner Name:	Rosenberger, Richard A.
	Confirmation No.:	5495
	Attorney Docket No.:	BOX006 US

	52.	5,790,251	8/4/98	Hagiwara	356	351	
	53.	5,657,754	8/19/97	Rosencwaig	128	633	
	54.	4,634,290	1/6/87	Rosencwaig	374	5	
	55.	4,552,510	6/11/85	Rosencwaig	374	7	
	56.	4,243,327	1/6/81	Frosch et al.	356	432	
	57.	3,930,730	1/6/76	Laurens et al.	356	106	
	58.	4,455,741	6/26/84	Kolodner	29	574	
	59.	4,468,136	8/28/84	Murphy et al.	374	45	
	60.	4,466,748	8/21/84	Needham	374	129	
	61.	5,408,327	4/18/95	Geiler et al.	356	432	
	62.	4,795,260	1/3/89	Schuur et al.	356	400	
	63.	6,559,942	5/6/03	Sui et al.	356	369	
	64.	6,336,969	1/8/02	Yamaguchi et al.	117	7	
	65.	6,528,333	3/4/03	Jun et al.	438	16	
	66.	6,081,334	6/27/00	Grimbergen et al.	356	357	
	67.	3,462,602	8/16/67	Apple	250	83.3	
	68.	5,149,978	09/22/92	Opsal et al.	250	234	

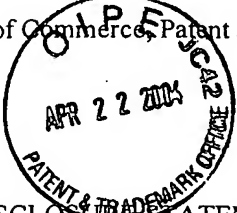
Foreign Patent Documents

							Translation	
		Document	Date	Country	Class	Subclass	Yes	No
	69.	97/08536	06.03.97	WO	G01N	21/00		
	70.	0 718 595	20.12.95	Europe	G01B			
	71.	2000009443A	1/1/2000	Japan	G01B			X
	72.	99/64880	16.12.1999	PCT	G01R	31/26		
	73.	05006929A	Jan-93	Japan	H01L	21/66		
	74.	00/07357	3/20/00	PCT	G01R	21/17		

Examiner:

Date Considered:

* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.

U.S. Department of Commerce, Patent and Trademark Office  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Application No.:	10/090,316
	Filing Date:	March 1, 2002
	First Named Inventor:	Peter G. Borden
	Group Art Unit:	2877
	Examiner Name:	Rosenberger, Richard A.
	Confirmation No.:	5495
	Attorney Docket No.:	BOX006 US

Other Art (Including Author, Title, Date, Pertinent Pages, Etc.)		
75.	Jackson, "Classical Electrodynamics", John Wiley & Sons, Inc., (month unavailable), 1967, pp. 222-226	
76.	Rosencwaig et al. "Detection of Thermal Waves Through Optical Reflectance", Appl Phys. Lett. 46, June 1985, pp1013-1015	
77.	Rosencwaig, "Thermal-Wave Imaging", SCIENCE, Volume 218, No. 4569, Oct. 1982, pp.223-228	
78.	Opsal et al. "Thermal-Wave Detection and Thin-Film Thickness Measurements with Laser Beam Deflection", Applied Optics, Vol. 22, No. 20, Oct. 1983, pp. 3169-3176	
79.	Rosencwaig, "Thermal Wave Characterization and Inspection of Semiconductor Materials and Devices", Chapter 5 (pp. 97-135) of Photoacoustic and Thermal Wave Phenomena in Semiconductors, North Holland (month unavailable) 1987	
80.	"Process Monitoring System," Quantox Product Brochure, 3 pg, prior to June 10, 1998	
81.	J. Kolzer et al "Thermal Imaging and Measurement Techniques for Electronic Materials and Devices" Microelectronic Engineering, vol. 31, 1996 (month unknown) pages 251-270	
82.	C. Martinsons et al. "Recent progress in the measurement of thermal properties of hard coatings" Thin Solid Films, vol. 317, April 1998, 455-457.	
83.	S. Wolf and R. N. Tauber, "Silicon Processing For The VLSI Era", Volume 1, 1986, pages 388-399	
84.	Yaozhi Hu and Sing Pin Tay, "Spectroscopic ellipsometry investigation of nickel silicide formation by rapid thermal process", J. Vac. Sci. Technology, American Vacuum Soc. May/Jun 1998, pages 1820-1824	
85.	<u>Quality Today News, article entitled "In-Line Metrology SEM System with 3D Imaging" dated January 10, 2000 and published at http://www.qualitytoday.com/Jan-00-news/011000-3.htm before April 4, 2001</u>	
86.	Bristow, Thomas C. and Dag Lindquist, "Surface Measurements With A Non-Contact Nomarski-Profilng Instrument", Interferometric Metrology, SPIE vol. 816, August 1987, pages 106-110	
87.	Walter G. Driscoll and William Vaughan, "Handbook of Optics", 1978, pages 8-42, 8-43, 8-107, and 10-72 to 10-77	
88.	Charles Kittel, "Introduction to Solid State Physics", Fourth Edition, John Wiley & Sons, published prior to March 1, 2002, pages 262-264	
89.	Rolf E. Hummel, "Electronic Properties of Materials, An Introduction For Engineers", published prior to March 1, 2002, pages 137-145	
90.	H.S. Carslaw and J.C. Jaeger, "Conduction of Heat In Solids", Second Edition, published prior to March 1, 2002, pages 64-66	
91.	"Process Monitoring System", Quantox Product Brochure, 3 pages, published prior to March 1, 2002	

Examiner:

Date Considered:

* Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication with applicant.